Family Structure, Father Closeness, & DELINQUENCY

A Report from National Fatherhood Initiative

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Executive Summary

The thesis of this study is that children and adolescents who grow up in intact families are generally less likely to commit acts of delinquency than children and adolescents who grow up in non-intact families, which, for the purposes of this paper, are defined as single-parent families, blended or stepfamilies, and no-parent families. Using both a bivariate regression model and several multiple regression models, the paper sets out to test the hypothesis that family structure has a significant impact on the level of risk of adolescent delinquency even when controlling for other factors that encourage or inhibit delinquent acts.

Further, the paper, unlike previous studies tackling this same issue, explores *why* family structure is important in determining delinquency among adolescents. Namely, it explores the role of "father closeness" both in accounting for the importance of an intact family as an inhibitor of delinquency, and as an important factor inhibiting delinquency in its own right, independent of family structure. Previous studies have lumped the effect of mothers and fathers together, or have even entirely ignored the role of fathers. This study sets out to separate these effects, and on the way to analyzing the independent role of father closeness, the report also explores the importance of mother closeness on adolescent delinquency.

The data used in the study was taken from the public-use sample of the North Carolina Population Research Center's ADDHEALTH Database, which was funded by over 18 Federal agencies. The database contains survey data on a nationally representative sample of thousands of middle and high school-aged students.

Methodologically, the paper uses regression models to test for relationships between the main independent variable, family structure, and the dependent variable, adolescent delinquency, broken down into five categories: weapons, violence, theft, disorder, and running away.

Some of the significant findings are as follows:

- In the initial bivariate test between family structure and delinquency, the expected pattern of family structure results was found for four of the five delinquency indexes (disorder being the exception), and for three of the five, the differences

were either largely or completely statistically significant. In other words, the levels of risk for weapons, violence, theft, and running away run, from highest to lowest, as follows: no-parent, single-parent, blended, and intact.

- To control for extraneous and potentially confounding variables, and to begin to infer causation between family structure and delinquency (not just correlation), a multiple regression was run to control for factors such as age, IQ, sex, race/ethnicity, parental occupation, parental education, and church attendance. The results of the bivariate test were substantially replicated, the exception being that family structure was no longer a statistically significant predictor of weapons use.

- To begin testing the independent effects of father closeness, another multiple regression was run, adding father closeness as an additional independent variable. Father closeness was a statistically significant predictor of four of the five categories of delinquency, the exception being weapons use. Family structure still had direct effects on every variable except weapons and disorder. Interestingly, the differing effects on delinquency between intact families and blended families disappeared, and for the remainder of the paper, intact and blended families were analytically identical.

- To further clarify the importance of father closeness, mother closeness was added as an independent variable on top of the previous regression to test if the effects of father closeness were simply a function of mother closeness, which is frequently assumed. The regression revealed that father and mother closeness each had significant effects on their own unique sets of delinquency variables. Father closeness was a significant predictor of violence, disorder, and running away. Mother closeness was a significant predictor of theft, disorder, and running away. Neither predicted weapons use. The direct effects of family structure were eliminated for all of the delinquency factors except running away, although the indirect effects remained, which were mediated through mother and father closeness. More on this follows.

Taken together, the results of the four regression models establish the following points:

- Despite the virtual disappearance of the direct effects of family structure on delinquency (due to the insertion of several additional independent variables into the regressions), family structure still played a direct effect in one category of delinquency (running away) and a very important indirect effect – namely by providing differing levels of both mother and father closeness. Statistically speaking, a chain of variables in the recursive model can be followed to provide an interpretation of the results in the multiple regression models. Specifically, there is a chain of causation from independent variable (family structure) to intervening variable (father or mother closeness) to dependent variable (adolescent delinquency). Intact families, on average, provide more father and mother closeness than do non-intact families. Since father and mother closeness

have direct effects on adolescent delinquency, family structure plays a crucial indirect role in preventing adolescent delinquency.

- Father closeness is independent in its effects. When controlling for all other variables including mother closeness and family structure, father closeness has statistically significant, independent effects on adolescent delinquency. Specifically, for violence, disorder, and running away, father closeness is a statistically significant and robust predictor. Interestingly, unlike the situation for drug use (as described in the companion paper), mother closeness has independent effects on several measures of delinquency, namely theft, disorder, and running away.

- Most importantly, the study finds that in intact families there are consistently higher levels of both mother and father closeness, which both have independent effects on delinquency. Therefore, intact families are the best avenue with which to ensure that adolescents benefit from the powerful, unique, and irreplaceable effects of both mothers and fathers.

Given these results, programmatic focus should be on finding ways of ensuring as much "closeness" between adolescents and their fathers as possible, regardless of the particular situation a family may be in at a given point in time. Given that the study finds that there are relatively low levels of father closeness outside of the intact family structure (resulting in higher levels of delinquency), public policy should support programs that work to improve the relationships between all types of fathers, including noncustodial/nonresident fathers, and their children.

Ultimately, the goal of family-oriented programming and social services should be to encourage the formation and maintenance of the structure which provides the greatest opportunities for fathers and their children to form close, strong bonds. The results of this paper suggest that the ideal structure is the "intact family," or more accurately, a married, two-parent household. Marriage not only provides the highest levels of father closeness, but also the highest levels of mother closeness (which has its own independent, positive effects on adolescents), resulting in the lowest levels of adolescent delinquency as measured in this paper.

Introduction

Do different types of family structures pose different risks for adolescents' committing of delinquent acts? If so, which kinds of structures enhance these chances and which kinds inhibit them? A growing body of research on family structure suggests that children and adolescents who grow up in intact families are generally better off than those growing up in broken or "less traditional" family structures. It follows, then, that adolescents growing up in intact families are less likely to engage in delinquent acts than those growing up in broken and non-traditional family structures. This testable hypothesis, which is the subject of the research presented here, becomes more plausible from a brief discussion of the literature on family structure and, to some extent, on the literature on delinquency.

Much social science research has shown that family structure matters greatly to the individuals living in them. Linda Waite and Maggie Gallagher, in their magisterial essay, *The Case for Marriage*, have summarized the case for individuals (2000). They compiled a massive amount of research on a wide variety of subjects showing that married people are happier, healthier, and better off financially than those who are not married. They report that single men and women are more likely to smoke, to drink and drive, to have problems with alcohol, and to smoke, use illegal drugs, and get into fights than their married counterparts. The most sophisticated study of this nature, a detailed longitudinal study of a group of delinquents and nondelinquents, was carried out by Laub et al. (1998) who found that marriage, especially early marriage resulting in cohesive social bonds, has a preventive effect on the future likelihood of committing crime for even fairly hardened delinquents and criminals.

The literature on the importance of marriage suggests that if marriage is better for men and women than is not-being married, it is likely to be the case that it is better for children to be raised by married parents in intact families than in other types of family structures. This is an area where much research has been done, but surprisingly little consensus has been achieved.

Wells and Rankin (1991) carried out a detailed meta-analysis of 50 studies of families and delinquency, which provides some guidance through the thickets of

literature on this subject. These authors were able to reduce the substantial heterogeneity of these results into a few key findings. They found that the average bivariate correlation between family structure and delinquency ranged from 0.05 to 0.15. They further found that the impact of family structure varies for different types of offense. Correlations range from 0.05 for theft and violence to 0.173 for running away and truancy. They also found that children from families broken by divorce were somewhat more likely than those living in those broken by death to exhibit delinquency. They also found no difference between stepparents and single parents in reported delinquency.

These findings frame the hypotheses of this paper. The main hypothesis is that children and adolescents who grow up in intact families are generally less likely to engage in delinquent acts, and when they do so, they do them less frequently and less intensively than children and adolescents who grow up in non-intact families. To put it in the language of hypothesis testing, the primary independent variable is family structure, the primary dependent variables are measures of delinquent behavior, and the primary hypothesis of this paper is that the former affects the latter even when taking into account other factors that encourage or inhibit delinquency.

Family structure comes in many different varieties, and non-intact families are not all alike in their risk of adolescent delinquent behavior. Varying types of non-intact families produce substantial differences in their propensity to facilitate or inhibit delinquent behavior of children raised in them. Adolescents raised in one-parent or in blended families are at greater risk than children raised in intact families (with either two biological parents or two adoptive parents), but at less risk than children in families with no parents.

While these differences may appear to be obvious, they are not necessarily widely shared. For example, one widely respected theory of delinquency, social control theory, focuses on strong emotional bonds to conventional society as the chief preventive factor in delinquency. Social control theory says that a one-parent family should be as effective as two parents in socializing children, and thus no differences in rates of delinquency should exist between these types of families (quoted from Hirschi, 1969, in Matseuda and Heimer, 1987, p. 828). This is inconsistent with the effects of family break-up as

reported by Waite and Gallagher, and with the studies cited above by Wells and Rankin. Therefore, it is hypothesized that this difference will exist in the data examined here.

In their literature review, Wells and Rankin find that no difference exists between stepfamilies and single-parent families. Yet a study by Amato and Rivera (1999) suggests that children growing up in blended families exhibit more behavioral problems than those growing up in intact families, but the authors do not take a position on the single-parent vs. blended family issue. In short, children raised in intact families are the least likely to engage in delinquent acts, children in families with either one parent or blended families are more likely to do so, and children raised without parents at all are the most likely to engage in delinquent acts.

There are three possible reasons why the relationship between family structure and delinquency exists. First, simply growing up in a two-parent family predisposes children to conform to societal norms condemning delinquent behavior, because it is easier for two parents to discipline children, and easier for parents to discipline their children than for other relatives or stepparents to do so. Second, intact families with two parents are more likely to have fathers and mothers with strong attachment to their children, which in turn reduces the possibility of delinquency. A third possibility is that men and women living in traditional family arrangements share traditional values, which reduces the possibility of delinquent behavior among children raised by these families (cf. Gottfredson and Hirschi, 1991).

Of the three reasons cited above, the focus here is on the role of father attachment in explaining why an intact family is likely to be an inhibitor of delinquency, and as an important factor inhibiting delinquency in its own right, independently of family structure. Focusing on familial attachment instead of separating out father closeness and mother closeness obscures the role of the adolescent's separate relationships with mom and dad, which, while important even in intact families, is important in non-intact ones as well.

More general discussions of father attachment, however, provide some indication that father closeness is an important variable separate from mother closeness. In an extensive review of the literature, Rohner and Veneziano (2001) note that father closeness is a historically understudied variable both in popular culture and in the

scholarly literature. They note that until recently, the child development literature "accepted the unproven premise that mothers are most important in child development" (p. 386). Their own literature review finds that father love is at least as important a predictor of a number of different child outcomes, including psychological adjustment, conduct problems, cognitive and academic performance, mental illness, and substance abuse as is mother love. They even indicate that father closeness (to use the language employed here) is sometimes more important than mother closeness.

One study that has shown the importance of both father and mother closeness is by Amato and Rivera (1999). They show that positive father involvement results in fewer behavior problems in children than when such involvement is absent, even when controlling for mother's involvement. They found the opposite to be true as well. They also show that stepfamilies have less father involvement and less mother involvement than do intact families, and that living in a stepfamily contributes to reported behavior problems among the children. Most interestingly of all, they also found that the effects for paternal involvement are greater than those for maternal involvement, but chose not to emphasize these findings (Table 2, p. 381).

The importance of two-parent families is not necessarily a given. As noted above, Hirschi (1969) denied that single parents are more likely than two-parent families in producing delinquent behavior. More recently, Gottfredson and Hirschi (1990) point out that the Gluecks' classic study of delinquency found that delinquents were substantially less close to their mothers and to their fathers (p. 98). Therefore, mother closeness and father closeness require simultaneous examination and testing, both in the context of investigating the effects of family structure and of investigating the effects of father attachment.

Methods

The hypothesis was tested by means of a detailed statistical analysis of the ADDHEALTH database. The database is the product of the efforts of 18 different federal agencies directed by teams of researchers at the University of North Carolina Population Research Center (Bearman et al., 1998). It consists of a two-stage nationally stratified random sample of U.S. school children in 52 middle and 80 high schools. The

investigators obtained the rosters of students from the sampled schools and interviewed students both at school and with much more detailed at-home interviews using a long, highly structured questionnaire. The sampling design insured that the results are nationally representative with respect to region, urbanicity, school type, ethnicity, and school size.

Because the questions were so detailed and so intimate, protecting respondent privacy was essential to ensuring respondent cooperation, and is required for human subjects protection. The specialized samples that comprise the restricted ADDHEALTH database were not available and therefore were not used. Accordingly, the research reported here is based on the public-use ADDHEALTH database, which is a ½ random sample of the approximately 13,000 core respondents, and includes an additional subsample of black respondents with at least one parent with a college degree. It did not contain any of the other specialized subsamples.

Although the database contained in-school, in-home[1], and parental interview data, only the in-home adolescent data was used here.[2] This is because both the in-school interview and the parent interviews had substantial amounts of missing data. The final sample size used in all the analyses presented here is 6,504 cases. Since there is usually some missing data, analyses presented here usually have somewhat fewer cases available for each analysis.[3]

All analyses presented in this paper used the public use sampling weights developed by the ADDHEALTH staff in order to obtain the correct number and distribution of cases in the nation. However, all table and regressions results in this paper report the unweighted number of cases used in the analysis.

Because sampling weights were used in the analysis, and because of the nature of the stratification in the sample design, it was necessary to use special software when testing associations in the data for their statistical significance. Obtaining correct standard errors and thus correct assessment of statistical significances requires taking into account the sampling design and weights. This cannot be done using software (such as

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[1] The in-home interviews were conducted between April and December 1995.
[2] The ADDHEALTH database also contained a panel design for the in-home interviewees, which was not analyzed here due to its complexities.
[3] Missing data was deleted listwise from all the procedures reported here. Responses to questions of "refuse" and "don't know" were recoded as missing before deletion.

SPSS) that calculates statistical significances on the assumption of simple random sampling. The WESVAR 4.2 ™ statistical package developed by the WESTAT Corporation was used to carry out all the final analyses reported in this paper.[4]

Because of the complex skip patterns in the questionnaire and because family structure is a very complex variable, a substantial amount of programming was required to render the data ready for the kinds of analyses desired here. These programming tasks included computing indices of family structure, and creating the delinquency indices, and the indices of father closeness and mother closeness. The SPSS 10.0™ software package was used for these purposes. All such computations employed the public use sampling weights. The indices thus created are discussed below.

In analyzing these data with the explicit hypothesis that intact families are less likely to have adolescents who commit acts of delinquency than are less intact or traditional family arrangements, questions of causality enter in. Although the data analyzed here are in the form of a one-shot cross section survey, it is possible to make reasonable if not definitive inferences about causality given certain assumptions about processes generating the results found in the data. In order for a causal interpretation of a descriptive statistical relationship between two variables to be plausible, three conditions need to be met. These are 1) statistical association, 2) time-ordering, and 3) lack of spuriousness (Rosenberg, 1968; Davis, 1984; Lerner and Nagai, 2000, 2001). All causal relationships must satisfy these criteria, even if only approximately. For the purposes of this paper, statistical association or correlation means that the data must display some kind of statistically significant association or correlation between a measure of family structure and a measure of delinquent behavior, either in tabular or equation form.

The second condition, time ordering, is a short-hand phrase for making sure that putative causes precede either in time or are characterized by greater "hardness" or "fixity" than their putative effects (Rosenberg, 1968, Lerner et al. 2001). For example, race is not likely to be an effect of delinquent behavior. In this case, the kind of family structure of a household is reasonably considered to be antecedent to the delinquent behavior among the children raised there. It is imaginable but highly unlikely that an

[4] Following the suggestion of the ADDHEALTH staff, standard errors were calculated using the delete one jackknife using the cluster variable they suggested as the grouping variable.

adolescent's delinquent behavior causes a change in family structure of a household unit and far more likely to be the case that different family structures predispose adolescents to a greater or lesser degree of delinquent behavior.

The third condition, which is demonstrating a lack of spuriousness, requires control of confounding variables that might explain any statistical association between the independent and dependent variables. The independent variable is the index of family structure, and the dependent variables are indicators of delinquent behavior. Stated slightly differently, it is necessary to show that any association between delinquent behavior and family structure is not the result of their shared association with another variable, such as the age or race/ethnicity of the adolescent. This condition is the most difficult one to meet in cross-sectional survey research of the kind reported on here. In this paper, tests for spuriousness are done by statistically controlling for or adjusting for these confounding variables. This is done by computing multiple regression equations for different indicators of delinquent behavior, containing both the measure of family structure and potential confounding or extraneous variables in the same equation. The persistence of statistically significant relationships, despite controlling or adjusting for the effects of these variables, provides substantial support to the view that family structure is one of a number of causal variables that explains patterns of delinquent behavior, and that it is not merely symptomatic of such behavior. These potential confounders include characteristics of the respondents, such as their race/ethnicity, sex, age, religiousness, and cognitive ability, as well as characteristics of their families, such as the parental level of education and parental occupational status.

For the kind research presented in this paper, it is important to distinguish between extraneous or confounding variables and intervening variables (e.g. Rosenberg, 1968; Davis, 1985; Lerner and Nagai, 2000, 2001). The former variables act or exist prior to both the independent and the dependent variable, in time or by virtue of theoretical reasoning, while intervening variables have their effect after that of the independent variable but before the dependent variables. Thus, family structure is an antecedent variable. It is normally not something affected by the adolescent respondents, but is a condition over which they have little or no control while it potentially affects their attitudes and behaviors.

Father closeness, however, is an intervening variable between family structure and the delinquency variables. This is partly because father closeness exhibits a relative lack of "hardness," being a disposition, such as a feeling or attitude, and not a property, status, or attribute, such as age, race, or sex. Another important feature of father closeness is that it may be, in part, a result of the child's behavior, not only a cause of it. While it makes sense to say that the child behaves well because he/she is close to his/her father, it may also be somewhat the case that he or she is close to his/her father because he/she behaves well. In other words, bad behavior may lead to the weakening of the father-child relationship and good behavior might strengthen it. Even though there is some ambiguity as to whether father closeness is a cause of delinquent behavior or a consequence of a lack of delinquent behavior, the regressions and tables presented here feature family structure as an antecedent variable and father closeness as an intervening variable relative to delinquent behavior.

Father closeness is important because the bond between child and father may be important in enforcing the standards of the outside world. As will be shown later, father closeness is stronger in intact families than in the other types of family, which is precisely what would be expected if it were an intervening variable and not a consequence of deviant behavior.

Measures

Independent Variable: Family Structure

The measure of family structure used in this paper was derived from information on the complete household roster provided by the adolescent respondent for the household in which he or she lived. The respondent was asked about his or her relationship to every person living in the household. If the person in question was described as a mother or a father, the respondent was asked to categorize that person's relationship to him or her, which included biological mother, biological father, stepfather, stepmother, adoptive father, adoptive mother, foster mother, foster father, other mother, and other father. From this information, variables were created using a computer program written by the author to develop a consistent list of type of mother and type of

father for each respondent. The "type of mother" and the "type of father" variables contained the following categories: 1) biological parent, 2) stepparent, 3) adoptive parent, and 4) no parent. When these measures were combined, a 16-category measure of family structure was created using all the categories.

Because two of these categories had no cases and a number of others had very few cases, the original 16-category variable was recoded into a 4-category index of family structure: 1) no parents,[5] 2) one parent,[6] 3) intact family,[7] and 4) blended families (See Table 1). This provided a somewhat more balanced distribution of cases, while retaining the largest number for statistical analysis, using up the fewest degrees of freedom, and preserving the essential theoretical differences between types of family structure. Therefore, this is the family structure index used in the remainder of the paper.

Table 1. Types of Family Structure

Family Structure	Weighted N_s	N_s	Percent
None	1,260,589.7	379	5.66
One	6,355,564.7	1,950	28.55
Intact	12,219,708.0	3,479	54.89
Blended	2,425,138.1	696	10.89
Overall	22,261,000.0	6,504	100.00

[5] These are individuals who did not list either a mother or a father in the family roster questions. Although no complete analysis was undertaken of these cases, it appeared that a number were living with grandparents or with other relatives such as their aunts.

[6] It is possible to distinguish between single-parent mother and single-parent father families. Children in the latter category displayed the greater propensity to engage in delinquent behavior (results not shown here). This distinction is not as important to this paper as is the overall differences in family structure between intact and non-intact families. The analysis here relied upon the index of family structure described above.

[7] There were 68 cases with two adoptive or two stepparents of which 60 were adoptive. As the critical category is whether or not a family was intact, but not blended, and not biological relatedness per se, and because it subsequently turned out that the differences between the two biological parents category and two adoptive parents category were largely non-existent (results not shown here), biological and adoptive parents were combined in the final index into the single category "intact family." Mixed or blended families with one biological parent and one stepparent have been shown to not operate as well as homogenous two-parent families, results that are found here as well.

Intervening Variables: Father Closeness and Mother Closeness

Father closeness was measured by a series of four questions asked of respondents about their perceived feelings towards their resident fathers.[8] These were: 1) I feel close to Dad, 2) Dad is warm and loving, 3) How much does he care for you, and 4) I have a good relationship with my Dad. Because the questions, as asked, provided response categories in opposite directions, the questions "Dad Warm and Loving" and "Dad Good Relationship" were recoded so that higher scores were awarded to positive responses. The four variables were then subjected to a principal components analysis and factor scores were generated from the single factor extracted. For ease of interpretation, the factor scores were recoded so as to have a mean of 100 and a standard deviation of 10. This recoding has no effect on the statistical properties of the index.[9] The higher the score on this variable, the closer respondents felt toward their father. It is hypothesized that father closeness is one reason that intact families work in producing conforming, well-adjusted behavior among children raised in them.

A second similarly created index measures mother closeness. It was measured by a series of four questions asked of respondents about their perceived feelings towards their resident mothers. These were: 1) I feel close to Mom, 2) Mom is warm and loving, 3) How much does she care for you, and 4) I have a good relationship with my Mom. Because the questions provided response categories in opposite directions, the questions "Mom Warm and Loving" and "Mom Good Relationship" were also recoded so that higher scores were awarded to positive responses. The four variables were then subject to a principal components analysis and factor scores were generated from the single factor extracted. For ease of interpretation, the factor scores were recoded so as to have a mean of 100 and a standard deviation of 10. The higher the score on this variable the closer respondents felt toward their mother.

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[8] The questions were asked of "resident fathers" and "resident mothers." These categories were determined from respondents' answers to the parental portion of the household register questions. This was done so that if a respondent did not nominate anyone from his/her household as his/her mother and father, the respondent would be asked if there was someone living in the house who acted as a mother and also someone there who acted like a father. Unfortunately, individuals who listed only a mother were not asked about someone playing the role of a father, and respondents who listed only a father were not asked about someone playing the role of a mother. As described below, when both the father closeness and mother closeness variables are used in the same equation, there are no respondents for single-parent families.

[9] In more technical language, the scores are statistically invariant when linearly transformed.

Dependent Variable: Delinquency

There have been many different measures of delinquency used in empirical research. According to both Well and Rankin (1991) and Gottfredson and Hirschi (1991), one kind of measure is the arrest record or official records. Delinquents are those with an arrest record and non-delinquents are those without such records. These kinds of measures have been criticized because they are subject to substantial reporting biases. Although they would be worth examining, there are no such measures in the ADDHEALTH database, and thus are not considered here.

Another source of data is the use of self-reported delinquent acts. Although these reports are subject to biases of their own, Wells and Rankin point out that this is considered to be the preferable alternative source of data. The ADDHEALTH database included 21 questions of this nature asking about respondent participation in delinquent activities. Question wordings, response categories, and scoring are listed in Appendix Table 1.

Principal components analysis was used to reduce these 21 items into 5 meaningful groups of questions or factors, which were produced in the initial run. These initial components were subject to a varimax rotation in order to see to what extent individual items could be separated into meaningful factors. Ideally, each item would load (or correlate with) a single factor, and the patterns of loadings would lead to easily interpretable factors summarizing the information contained in the responses to the 21 separate question items.

The five factors that saved were named as follows: weapons, violence, theft, disorder, and runaway. The variables that loaded on a particular factor and their factor score coefficients are listed in Appendix Table 2. Factor scores were calculated from factor-score coefficients and saved as separate variables for further analysis. For convenience, the scores calculated from each of the 5 factors were recoded to 5 different scales, each with a mean of 100 and a standard deviation of 10. Higher scores indicate a likelihood of acting in a particular way, and scores less than 100 indicate a likelihood of not acting in a particular way.

Results

Bivariate Relationships

Table 2. Mean Factor Scores by Family Structure

Family Structure	Weapons	Viol	Theft	Disorder	Run	N_s
None	101.39	102.24	100.27	98.02	103.96	359
One	100.69	101.68	100.72	100.16	101.16	1,913
Intact	99.53	99.04	99.62	100.26	98.91	3,437
Blended	99.85	99.37	99.89	99.24	100.54	685
Overall	100.00	100.00	100.00	100.00	100.00	6,394

Table 3. Intact Families Versus Other Types: Differences in Mean Factor Scores

Comparison	Weapons	Violence	Theft	Disorder	Run
No vs. Intact	1.86*	3.21**	0.64	-2.24**	5.05**
One vs. Intact	1.16**	2.64**	1.10**	-0.10	2.25**
Blend vs. Intact	0.31	0.33	0.26	-1.02**	1.63**
Overall	-0.54*	-0.99**	-0.20	0.52**	-1.34**

*$p \leq .05$ level of significance, ** $p \leq .01$ level of significance

The relationship between the four-category index of family structure and the five indicators of delinquency is shown in Tables 2 and 3. The results indicate that in 12 of 15 instances, scores on the delinquency indices are statistically significant in the predicted direction. The hypothesized pattern of results from those types of family structures most conducive to having delinquent adolescents to those least conducive, is found among weapons, violence, theft, and running away variables, but is not found in the disorder results.

The propensity to use weapons has a score of 99.53 among adolescents in intact families, a score of 99.85 among those in blended families, a score of 100.69 in one-parent families, and a score of 101.39 for adolescents living in families with no parents. Although the differences between intact and single-parent families and between intact families and no-parent families are statistically significant, the difference between the intact family and the blended family is in the correct direction but is not statistically significant.

Among adolescents in intact families, the propensity to commit violence has a score of 99.04, blended families have an average score of 99.37, one-parent families have an average score of 101.68, and adolescents raised in no-parent families have an average score of 102.24. Although the differences between intact and single-parent families and between intact families and no-parent families are statistically significant, the difference between the intact family and the blended family is in the correct direction, but is not statistically significant.

The propensity to commit theft variable largely follows the same general pattern. Adolescents living in intact families have the lowest score (99.62), adolescents living in blended families have the next lowest score (99.37), no-parent family adolescents have a still higher score (100.27), and adolescents living in one-parent families have the highest score (101.27). It is noteworthy that adolescents living in no-parent families in this instance do not have the highest theft scores, but otherwise the differences are the expected ones. The only difference that is statistically significant, however, is between intact families and single-parent families.

The pattern for disorder scores is at variance with the predictions made. Rather strangely, intact families have the highest scores and those with no parent have the lowest scores. The results are statistically significant but in a direction opposite to that predicted by the hypothesis.

The pattern of results for runaways is exactly as was predicted. Adolescents living in intact families have the lowest scores at 98.91, those living in blended families have the next lowest average scores at 100.54, single-parent families have still higher scores at 101.96, and adolescents growing up with no parents have the highest scores at 103.96. All the predicted differences are statistically significant in the expected direction.

The expected pattern of family structure results was found for four of the five delinquency indices, and, for three of the five, the differences were either largely or completely statistically significant.

Multivariate Tests With Extraneous Variables

In order to control for potentially confounding variables, multiple regression equations were estimated for each of the five delinquency factors with family structure as the independent variable. These results control for the potentially extraneous or confounding variables of age, IQ, sex, race/ethnicity, parental occupation, parental education, and church attendance.[10] The results are described in Tables 4, 5 and 6.

Table 4. Multiple Regression (N=5889)

Parameter	Weapons	Violence	Theft	Disorder	Run
Family Structure					
No Parent	0.37	1.77	1.69	0.26	2.64*
One Parent	0.48	2.00**	1.16*	1.16*	0.88
Intact	-0.17	0.14	-0.08	0.75	-1.34**
Church Attendance					
Once a Week	-0.22	-1.80**	-1.64**	-0.67	-1.65**
At Least Once a Month	-1.01*	-1.61**	-1.36**	-0.23	-1.98**
Less Than Once a Month	-1.27**	-0.88	-1.35**	1.21**	-0.72
Education					
Less Than High School	1.04	1.84**	-0.21	0.10	0.31
High School Graduate	0.48	1.60**	-0.17	0.21	0.10
Some College	1.06	0.48	0.39	1.43*	-0.08
College Graduate	0.44	-0.47	0.47	0.31	-0.27
Occupation					
No Job	0.36	1.00	-0.76	-0.33	-1.34*
Professional, Managerial	0.27	-0.13	-0.02	0.55	0.03
Clerical, Sales	0.02	-0.12	0.47	-0.32	-0.45
Race					
White	-1.51*	-0.94	-1.12	-1.0	0.98

[10] Age was entered as a continuous variable measured in years. Race/ethnicity consisted of a five category dummy variable. The "other" category respondents were dropped from the recoded variable. The omitted category is Hispanic. The omitted category for sex is male. Church attendance was measured by using a four point scale, with the following categories: once a week or more, at least once a month, less than once a month, or never. "Never" was the omitted category. IQ was the standardized score of the AddHealth Picture Vocabulary Test administered at the beginning of the at-home questionnaire. Parental education created by combining father's education and mother's education, each recoded into a five-point scale, into a single family index of education, which used father's education when available and otherwise used mother's education. The five-categories were: less than high school, high school graduate, some college, college graduate, and professional school. The omitted category was "professional school." Parental occupation was created by combining mother's and father's occupation, each recoded into a four-category scale, into a single index of occupation, which used father's occupation when available and otherwise used mother's occupation. The four categories were: no job, professional/managerial, clerical/sales, and workers, including farm workers. The latter was the omitted category.

Parameter	Weapons	Violence	Theft	Disorder	Run
Black	0.34	0.83	-1.29*	-1.92**	0.20
Indian	0.04	2.01	0.60	0.17	2.02
Asian	-2.33**	-1.92*	-0.64	1.21	1.84
Age	0.02	-0.51**	-0.23**	0.02	1.04**
IQ	-0.03	-0.05**	0.04**	0.06**	-0.02
Female	-2.16**	-4.47**	-0.95**	-0.68	0.70*
Intercept	104.12**	115.19**	101.62**	93.65**	85.70**
R^2	0.027**	0.108**	0.018**	0.024**	0.063**

*p≤.05 level of significance, **p≤.01 level of significance

Table 5. P-Levels.

P-Levels	Weapon	Violence	Theft	Disorder	Run
Overall Fit	0.000	0.000	0.000	0.000	0.000
Age	0.822	0.000	0.006	0.860	0.000
IQ	0.095	0.001	0.002	0.000	0.125
Sex	0.000	0.000	0.000	0.032	0.022
Church Attend	0.004	0.001	0.012	0.001	0.000
Parent Education	0.346	0.000	0.504	0.094	0.847
Parent Occupation	0.800	0.569	0.248	0.211	0.085
Family Structure	0.452	0.000	0.003	0.123	0.000
Race	0.001	0.000	0.126	0.003	0.072
Intact vs. No Parent	0.584	0.085	0.070	0.497	0.000
Intact vs. One Parent	0.122	0.000	0.000	0.239	0.000

*p≤.05 level of significance, **p≤.01 level of significance

Table 6. Adjusted Mean Factor Scores by Type of Family with Controls

Family Structure	Adj. Weapons	Adj. Viol.	Adj. Theft	Adj. Disorder	Adj. Run
None	104.49	116.96	103.31	93.91	88.34
One	104.60	117.19	102.78	94.81	86.58
Intact	103.95	115.33	101.54	94.40	84.36
Blended	104.12	115.19	101.62	93.65	85.70

In the case of weapons use, family structure was not a statistically significant addition to the overall prediction equation. None of the predicted effects of family structure were statistically significant.

In the case of violence, family structure was a statistically significant addition to the overall prediction equation (p<.000). The difference between intact and one-parent

families is statistically significant at the p<.000 level of statistical significance, the difference between intact families and no-parent families is only statistically significant at the p<.085 level of statistical significance, and the difference between intact and blended families is not statistically significant.

In the case of theft, family structure is a statistically significant addition to the prediction equation at p<.003 level of statistical significance. The difference between intact families and one-parent families is statistically significant at the p<.000 level of statistical significance, the difference between intact families and no-parent families is statistically significant at the p<.07 level of statistical significance (a slightly weaker than conventional result), and the difference between adolescents living in intact and blended families is not statistically significant.

In the case of disorder, the addition of family structure as a variable does not add to the predictive effects of the equation and there continues to be no statistically significant differences among types of family structure as to whether adolescents engage in disorderly behavior.

In the case of running away, family structure does add to the predictive effects of the regression equation at the p<.000 level of statistical significance. All the differences among family structures that were hypothesized remain statistically significant. Adolescents in intact families are less likely to run away than ones with no parents (p<.000), those in intact families are less likely to run away than ones in blended families (p <.01), and those in intact families are less likely to run away than those with a single parent (p <.000).

The multivariate results substantially replicate the bivariate findings. The variables "violence," "theft," and "running away" display the characteristic pattern of differences in behavior between adolescents raised in intact families and other family types, while disorder and using weapons do not.

The Effects of Father Closeness

The next set of results is for father closeness. As Tables 7 and 8 show, the highest score for father closeness is in two parent intact families, the next highest score is among

those in single-father families, followed by those in no-parent families, but who nominated someone to be a father-substitute. The lowest is in blended families.

Table 7. Type of Family and Feelings Toward Father and Mother

Family Structure	Mean Dad Closeness Score	N_s	Mean Mom Closeness Scores	N_s
None	97.87	141	98.55	239
One	97.96	233	99.46	1,710
Intact	100.94	3471	100.51	3,469
Blended	96.40	693	99.14	693
Overall	100.00	4538	100.00	6,111

Table 8. Intact Versus Other Types of Families: Differences in Mean Feelings Towards Dad and Mom

Comparison	Dif. in Means, Dad Closeness	Dif. In Means, Mom Closeness
Intact vs. No	-3.06**	-1.96*
Intact vs. One	-2.97**	-1.04**
Intact vs. Blend	-4.53**	-1.36**
Overall	1.71**	0.58**

*p≤.05 level of significance, **p≤.01 level of significance

Each of the comparisons between intact and other types of family structure are statistically significant at the p<.05 level of statistical significance or better. These results support the view that father closeness is one of a number of intervening variables that explains *why* adolescents raised in intact families are the least likely to engage in delinquent behavior. It is because they are closer to their fathers than children in other family types. It is also of interest to see whether the two delinquency factors that showed no relationship with family structure show any relationship with father closeness.

Table 9. Multiple Regressions w/ Intervening Variable, Dad Closeness (N=4227)

Parameter	Weapons	Violence	Theft	Disorder	Run
Family Structure					
No Parent	-0.15	1.41	2.21	-0.18	3.77*
One Parent	2.84*	2.95**	2.05	1.09	3.22**

Parameter	Weapons	Violence	Theft	Disorder	Run
Intact	-0.22	0.29	0.20	1.30**	-0.66
Dad Closeness	0.01	-0.05*	-0.07**	-0.15**	-0.16**
Church Attendance					
Once a Week	-0.11	-0.99*	-1.41*	0.38	-1.17*
At Least Once a Month	-1.24**	-0.87	-1.21*	0.80	-1.58**
Less Than Once a Month	-1.18*	-0.15	-1.27*	1.73**	-0.56
Education					
Less Than High School	0.29	1.18	-0.68	-0.31	-0.08
High School Graduate	0.26	-0.03	-0.22	0.82	0.15
Some College	-0.06	0.48	0.19	-0.39	-0.21
College Graduate	1.59*	1.62*	-0.47	-0.08	-0.02
Occupation					
No Job	0.82	1.13*	-0.52	0.35	0.00
Professional, Managerial	0.76	0.04	0.28	1.25	-0.21
Clerical, Sales	0.62	-1.1*	0.50	0.50	-0.42
Race					
White	-1.58*	-0.23	-1.31*	-0.48	0.79
Black	0.60	2.03*	-1.57*	-1.19	0.06
Indian	0.67	2.48	1.01	0.42	1.59
Asian	-2.33**	-1.19	-0.54	1.12	0.78
Age	-0.05	-0.55**	-0.25	0.00	0.83**
IQ	0.00	-0.06**	0.05**	0.05**	-0.03*
Female	-1.49**	-4.38**	-0.8*	-0.77*	0.25
Intercept	101.04**	120.65**	108.31**	108.61**	105.39**
R^2	0.028**	0.106**	0.026**	0.042**	0.095**

*p≤.05 level of significance, **p≤.01 level of significance

Table 10. P-Levels With Dad Closeness as Intervening Variable

P-Levels	Weapons	Violence	Theft	Disorder	Run
Overall Fit	0.000	0.000	0.001	0.000	0.000
Age	0.599	0.000	0.012	0.987	0.000
IQ	0.804	0.000	0.000	0.001	0.019
Dad Closeness	0.514	0.018	0.001	0.000	0.000
Sex	0.000	0.000	0.014	0.038	0.429
Church Attend	0.004	0.131	0.120	0.007	0.015
Parent Educ.	0.848	0.556	0.585	0.050	0.838
Parent Occu.	0.286	0.000	0.281	0.330	0.895
Family Struc.	0.084	0.017	0.161	0.038	0.000
Race	0.001	0.000	0.106	0.120	0.455
Intact vs. No Parent	0.951	0.384	0.169	0.104	0.003

P-Levels	Weapons	Violence	Theft	Disorder	Run
Intact vs. One Parent	0.012	0.002	0.069	0.799	0.000

Table 11. Adjusted Mean Factor Scores by Type of Family w/Controls & Dad Closeness

Family Structure	Adj. Weapons	Adj. Viol.	Adj. Theft	Adj. Disorder	Adj. Run
None	100.89	122.06	110.52	108.43	109.16
One	103.88	123.60	110.36	109.70	108.61
Intact	100.82	120.94	108.51	109.91	104.73
Blended	101.04	120.65	108.31	108.61	105.39

These results are shown in Tables 9, 10 and 11 above. The results for father closeness are as follows. In the case of weapons use, there is no statistically significant relationship between father closeness when controlling for all other variables. In all four other cases, however, there are strongly statistically significant and negative relationships between father closeness and the other indicators of delinquency. In the case of violence, the relationship is statistically significant at the $p<.017$ level of statistical significance. In the case of theft, the relationship is statistically significant at the $p<.001$ level of statistical significance. In the case of disorder, the relationship is also statistically significant at the $p<.000$ level of statistical significance, and for running away, the relationship is also statistically significant at the $p<.000$ level of statistical significance.

The results for family structure are also of interest. Not surprisingly in the case of weapons use and disorder, there continues to be no relationship between family structure and scores on these indices. Family structure remains statistically significant in the case of violence $p<.017$, and in the case of running away, family structure remains statistically significant at the $p<.000$ level of statistical significance. In the former instance, the difference between intact families and no-parent families is statistically significant ($p<.002$), while the other differences are no longer statistically significant. In the latter case, the difference between intact families and no-parent families is statistically significant ($p<. 003$), as is the difference between intact families and one-parent families ($p<.000$). The difference between intact and blended families is in the hypothesized direction but is no longer statistically significant.

Clearly, father closeness does function as both an independent influence on various forms of delinquency and as a partial explanation of the reason that three of the indices show the differences in family structure described earlier.

Mother and Father Closeness

The final set of regressions added the variable "closeness to mother" in order to ascertain whether the relationship between father closeness and the delinquency indices found in the earlier set of regressions exists only because of mother closeness. This supposition is worth testing for several reasons. First, as was the case with father closeness, mother closeness is strongly related to family structure. Examining the data displayed earlier in Table 7, it was found that mother closeness is also related to type of family structure. Adolescents in intact families have the highest degree of mother closeness followed by those in single-parent families (mothers only), blended families, and those with no parents who nominated a mother-substitute when asked. All these results are statistically significant at the usual levels statistical significance. The second reason it is worth testing is because mother closeness and father closeness are highly correlated with each other in the data ($r=.49$, $p<.000$). It might be possible, then, that all the effects attributed to father closeness are due to its correlation with mother closeness.

The exact nature of the relationship between "mother closeness" and the other variables is worth a brief discussion. Relative to family structure, and as with father closeness, mother closeness is an intervening and not an antecedent variable. Even if the relationship between family structure and delinquency vanished when controlling for mother closeness, family structure would continue to be counted as having an indirect causal effect on delinquency. In this circumstance, mother closeness provides an additional portion of the explanation as to why adolescents raised in intact families are less likely to engage in delinquent acts than those raised in other family structures.

However, relative to father closeness, mother closeness can be considered a kind of extraneous variable, because one might argue that the only reason father closeness predicts delinquency is because those adolescents with good relationships with their

father also have them with their mothers, and mother closeness is the more important of the two variables.

Table 12. Multiple Regressions with Dad Closeness & Mom Closeness (N=3999)

Parameter	Weapons	Violence	Theft	Disorder	Run
Family Structure					
No Parent	0.02	1.38	1.97	-0.48	3.45*
Intact	-0.24	0.29	0.07	1.17*	-0.83
Dad Closeness	0.03	-0.06*	-0.02	-0.08**	-0.10**
Mom Closeness	-0.03	0.02	-0.06**	-0.15**	-0.10**
Church Attendance					
Once a Week	-0.08	-1.00*	-1.49*	0.53	-1.02*
At Least Once a Month	-0.95	-1.06*	-1.13	0.68	-1.64**
Less Than Once a Month	-1.10*	-0.42	-1.42*	1.62**	-0.67
Education					
Less Than High School	1.41*	1.38*	-0.70	0.23	0.03
High School Graduate	0.71	1.22*	-0.85	0.56	0.11
Some College	0.74	-0.19	0.32	1.43*	0.05
College Graduate	0.81	-1.22**	0.53	0.60	-0.16
Occupation					
No Job	0.38	1.53	-0.49	-0.10	0.56
Professional, Managerial	0.10	-0.03	-0.52	0.93*	0.00
Clerical, Sales	-0.21	0.59	0.15	-0.43	-0.24
Race					
White	-1.37*	-0.25	-1.21*	-0.34	0.98
Black	0.48	1.55	-1.24	-1.45*	0.28
Indian	1.53	2.93*	1.51	0.19	1.88
Asian	-2.07*	-1.09	-0.48	0.80	0.76
Age	-0.05	-0.53**	-0.28**	-0.03	0.79**
IQ	-0.01	-0.06**	0.05**	0.04**	-0.02*
Female	-1.30**	-4.39**	-0.91**	-1.04**	0.07
Intercept	102.89**	120.24**	110.91**	118.40**	110.38**
R^2	0.021**	0.103**	0.027**	0.061**	0.092**

*p≤.05 level of significance, **p≤.01 level of significance

Table 13. P-Levels with Dad and Mom Closeness

P-Levels	Weapons	Violence	Theft	Disorder	Run
Overall Fit	0.000	0.000	0.000	0.000	0.000
Age	0.648	0.000	0.005	0.780	0.000
IQ	0.650	0.000	0.000	0.005	0.019
Dad Closeness	0.263	0.016	0.263	0.001	0.001
Mom Closeness	0.304	0.374	0.004	0.000	0.000
Sex	0.000	0.000	0.005	0.006	0.833
Church Attend	0.029	0.146	0.076	0.034	0.011
Family Struc	0.830	0.426	0.420	0.017	0.004
Race	0.001	0.002	0.120	0.088	0.278
Parent Occu.	0.862	0.377	0.352	0.019	0.808
Parent Educ	0.279	0.000	0.051	0.346	0.985
Intact vs. None	0.825	0.414	0.187	0.068	0.004

Table 14. Adjusted Mean Factor Scores by Type of Family w/Controls, Dad Closeness & Mom Closeness

Family Structure	Adj. Weapons	Adj. Viol.	Adj. Theft	Adj. Disorder	Adj. Run
None	102.91	121.62	112.88	117.92	113.83
Intact	102.65	120.53	110.98	119.57	109.55
Blended	102.89	120.24	110.91	118.40	110.38

The findings are shown in Tables 12,13, and 14 above. Neither mother nor father closeness were statistically significant predictors of the use of weapons. Neither was much else, it should be noted. In the case of violence, father closeness was statistically significant at the p<.016 level of statistical significance and the relationship was in the expected direction, so that the higher the father closeness, the lower the violence. However, mother closeness was not statistically significant. In the case of theft, father closeness was not statistically significant, while mother closeness was statistically significant at the p<.004 level of statistical significance. The relationship was in the expected direction, so that the greater the mother closeness, the lower the theft score and vice versa. In the case of disorder, both mother closeness and father closeness were statistically significant, the former at the p<.000 level of statistical significance and the latter at the p<.001 level of statistical significance. In the case of running away, father closeness was statistically significant at the p<.001 level of statistical significance while mother closeness was statistically significant at the p<.000 level of statistical

significance. Both variables had effects in the expected direction, so that the greater the father closeness or the greater the mother closeness, the less was the propensity to run away, controlling for all other variables.

It is noteworthy that unlike the situation for drug abuse (as discussed in the companion paper), for the delinquency measures, mother closeness appears to be as or more important than father closeness. For three of the delinquency factors, father closeness is statistically significant (violence, disorder, and runaway) and for a somewhat different set of delinquency factors, mother closeness is statistically significant (theft, disorder, and runaway). Neither is statistically significant for the use of weapons, and both are statistically significant for disorder and for runaway. Despite or perhaps because of the differences in the bivariate means with family structure, mother closeness is as important as father closeness. This does not mean, however, that father closeness is unimportant. It clearly exerts an independent effect on violence, disorderly behavior, and running away.

Table 15. Differences in Mean Factor Scores

Weapons

Family Structure	Simple Bivariate	Multivariate Controls	Controls Plus Dad-Closeness	Controls Plus Dad-Mom-Closeness
No vs. Intact	1.86*	0.54	0.07	0.26
One vs. Intact	1.16**	0.65	3.06*	——
Blend vs. Intact	0.31	0.17	0.22	-0.24

Violence

Family Structure	Simple Bivariate	Multivariate Controls	Controls Plus Dad-Closeness	Controls Plus Dad-Mom-Closeness
No vs. Intact	3.21**	1.63	1.66	1.09
One vs. Intact	2.64**	1.83**	2.66**	——
Blend vs. Intact	0.33	0.14	-0.29	-0.29

Theft

Family Structure	Simple Bivariate	Multivariate Controls	Controls Plus Dad- Closeness	Controls Plus Dad-Mom-Closeness
No vs. Intact	0.64	0.77	2.01	1.90
One vs. Intact	1.10**	1.24**	1.85	——
Blend vs. Intact	0.26	-0.08	-0.20	-0.07

Disorder

Family Structure	Simple Bivariate	Multivariate Controls	Controls Plus Dad- Closeness	Controls Plus Dad-Mom-Closeness
No vs. Intact	-2.24**	-0.49	-1.48	-1.65
One vs. Intact	-0.10	0.41	-0.21	——
Blend vs. Intact	-1.02*	-0.75	-1.30*	-1.17*

Runaway

Family Structure	Simple Bivariate	Multivariate Controls	Controls Plus Dad- Closeness	Controls Plus Dad-Mom-Closeness
No vs. Intact	5.05**	3.98**	4.43**	4.28**
One vs. Intact	2.25**	2.22**	3.88**	——
Blend vs. Intact	1.63**	1.34**	0.66	0.83

*p≤.05 level of significance, **p≤.01 level of significance

As shown in Table 15, the effects of family structure are eliminated for all of the delinquency factors except for runaway. While the direct effect of family structure is reduced, it is far from eliminated. In the case of violence and theft, intact family structure is seen to be an indirect cause of delinquent behavior, but not a direct cause of it. In other words, its effects do exist, but are mediated through father closeness and mother closeness.

Discussion

Family structure is a causal factor in three of the five delinquency factors: violence, theft, and running away. It was not a causal factor in the case of weapons and disorder. Intact families are less likely to produce adolescents who report engaging in delinquent acts than are other types of family structure. Contrary to the original supposition, however, blended families do at least as well as intact families. It is only

single-parent and no-parent families whose adolescent children tend to commit delinquent acts at the higher rate originally predicted for all non-intact family structures.

The first result contradicts the finding of Wells and Rankin cited earlier: that less serious actions are more closely associated with family structure than are more serious ones. Disorder is clearly less serious than violence and theft, yet is it not at all related to family structure while the latter two factors are related to it. The second finding contradicts the expectation cited earlier that blended families would be more problematic than intact ones.

The findings on the types of delinquent acts provide a puzzle that is not completely resolved. It may be that these differences between the delinquency measures are fortuitous. Gottfredson and Hirschi (1991) contend that all crime involves an opportunistic aspect and it may simply be the case that perhaps only a few of our respondents had the opportunities to carry out acts of vandalism.

The results for father and mother closeness are easier to explain. First, since the relationship between family structure and delinquency vanished when controlling for both closeness variables in four of the five instances, it is pretty well established that parental attachment is a major explanation of family structure effects. This is consistent with both the prior literature and the proposed explanation advanced at the beginning of this paper. It is notable that neither father nor mother closeness is a statistically significant predictor of weapons behavior, but each is statistically significant predictor of disorderly conduct. This suggests that the weapons questions may be tapping into some kind of subcultural behavior not really relevant to delinquency, because none of the relevant variables is correlated with it. The disorder questions, however, despite the lack of family structure effect, do so.

Second, it is clear that father closeness and mother closeness each play an important and independent role in predicting delinquent behavior. The importance of father closeness in predicting delinquency is not due to its correlation with mother closeness, and quite obviously, adolescents are least likely to be at risk for committing delinquent acts of any kind if they are close to both mothers and fathers. In short, family structure and father closeness matter in predicting delinquent behavior.

Bibliography

Amato, Paul and Fernando Rivera. " Paternal Involvement and Children's Behavior Problems." Journal of Marriage and the Family, Vol. 61, May, 375-384, 1999.

Bearman, Peter S., Jo Jones, and Richard J. Udry. The National Longitudinal Study Design of Adolescent Health: Research Design. url: http://www.cpc.unc.edu/projects/addhealth/design/html. 1998.

Davis, James A. *The Logic of Causal Order*. Beverly Hills, CA: Sage Publications, 1985.

Gottfredson, Michael R. and Travis Hirschi. *A General Theory of Crime.* Stanford, CA.: Stanford University Press, 1991.

Hirschi, Travis. 1969. *Causes of Delinquency*. Berkeley, CA: University of California Press, 1969.

Laub, John H., Daniel S. Nagin, and Robert J. Sampson. "Good Marriages and Trajectories of Change in Criminal Offending." American Sociological Review, 225-239, Vol. 68, No. 2, April, 1998.

Lerner, Robert and Althea K. Nagai. "Reverse Discrimination by the Numbers." Academic Questions, Vol. 13 No. 3, 71-84, Summer, 2000.

Lerner, Robert and Althea K. Nagai. *No Basis: What the Studies Don't Tell Us About Same-Sex Parenting*. Washington, D.C.: Marriage Law Project, 2001.

Matsueda, Ross L. and Karen Heimer. "Race, Family Structure, and Delinquency: A Test of Differential Association and Social Control Theories." American Sociological Review, 826-840, Vol. 52, December, 1987.

Rohner, Ronald H. and Robert A. Veneziano. "The Importance of Father Love: History and Contemporary Evidence." Review of General Psychology, Vol. 5, No. 4, 382-405, 2001.

Rosenberg, Morris. *The Logic of Survey Analysis*. New York: Basic Books, 1968.

Waite, Linda J. and Maggie Gallagher. *The Case for Marriage: Why Married People are Happier, Healthier, and Better Off Financially*. New York: Doubleday, 2000.

Wells, L. Edward and Joseph H. Rankin. "Families and Delinquency: A Meta-Analysis of the Impact of Broken Homes." Social Problems, Vol. 38, No. 1, 71-93: February, 1991.

Appendix

Table 1. Questions and Responses for Factor Analysis

Reponses to these questions below were scaled on a four-point scale:

"How Often Paint Graffiti"	0=never, 1=one or two times, 2=3 or 4 times, 3=5 or more times.
"How Often Damage Property"	0=never, 1=one or two times, 2=3 or 4 times, 3=5 or more times.
"How Often Lie to Parents About Place, People"	0=never, 1=one or two times, 2=3 or 4 times, 3=5 or more times.
"How Often Shoplift"	0=never, 1=one or two times, 2=3 or 4 times, 3=5 or more times.
"How Often Serious Physical Fight"	0=never, 1=one or two times, 2=3 or 4 times, 3=5 or more times.
"How Often Physical Fight"	0=never, 1=one or two times, 2=3 or 4 times, 3=5 or more times.
"How Often Run Away From Home"	0=never, 1=one or two times, 2=3 or 4 times, 3=5 or more times.
"How Often Steal a Car"	0=never, 1=one or two times, 2=3 or 4 times, 3=5 or more times.
"How Often Steal More Than $50"	0=never, 1=one or two times, 2=3 or 4 times, 3=5 or more times.
"How Often Burglarize a Building"	0=never, 1=one or two times, 2=3 or 4 times, 3=5 or more times.
"How Often Threaten/Use a Weapon"	0=never, 1=one or two times, 2=3 or 4 times, 3=5 or more times.
"How Often Sell Drugs"	0=never, 1=one or two times, 2=3 or 4 times, 3=5 or more times.
"How Often Steal Less than $50"	0=never, 1=one or two times, 2=3 or 4 times, 3=5 or more times.
"How Often Take Part in a Group Fight"	0=never, 1=one or two times, 2=3 or 4 times, 3=5 or more times.
"How Often Loud or Rowdy in a Public Place"	0=never, 1=one or two times, 2=3 or 4 times, 3=5 or more times.

Responses to the other questions were scaled as indicated below:

"Got Into a Physical Fight"	0=no, 1=once, 2=more than once
"Pulled a Knife or a Gun"	0=no, 1=once, 2=more than once
"Past Year, Shot or Stabbed Someone"	0=no, 1= once, 2=more than once
"Past Year, Away From Home No Permission"	0=no, 1=yes
"Ever Carry a Weapon to School"	0=no, 1=yes
"Ever Use a Weapon in a Fight"	0=no, 1=yes

Table 2: The Five Factors And Their Factor Score Coefficients (Coefficients Less Than .20 Not Shown)

	Factor Score Coefficient
Weapons	
How often use or threaten with a weapon?	.289
How often pulled a knife/gun on someone?	.354
How often shot or stabbed someone?	.365
Used a weapon in a fight?	.221
Violence	
How often serious physical fight?	.422
How often seriously injure someone?	.311
How often take part in a group fight?	.222
Got into a physical fight?.417	
Theft	
How often shoplift?	.364
How often steal more than $50?	.322
How often burglarize a building?	.368
How often steal less than $50?+	.366
Disorder	
How often paint graffiti?	.370
How often damage property?	.410
How often lie to parents about whereabouts?	.331
How often rowdy in a public place?	.375
Runaway	
How often lie to parents about whereabouts?	.213
How often runaway from home?	.494
How often steal a car?	.271
Spent night away from home without permission?	.606

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About National Fatherhood Initiative

National Fatherhood Initiative (NFI) was founded in 1994 to confront the most consequential social problem of our time: the widespread absence of fathers from children's lives.

NFI's mission is to improve the well-being of children by increasing the proportion of children growing up with involved, responsible, and committed fathers in their lives.

NFI accomplishes this mission through its "Three-E" strategy of:

- Educating and inspiring all people, especially fathers, through public awareness campaigns, research, and other resources.
- Equipping and developing leaders of national, state, and community fatherhood initiatives through curricula, training, and technical assistance.
- Engaging every sector of society through strategic alliances and partnerships.

For more information about NFI, visit our website at www.fatherhood.org or call us at 301-948-0599.

National Fatherhood Initiative℠

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